



DARPA Grand Challenge

October 8, 2005

Mr. Ron Kurjanowicz

in association with:





Preparation Day

October 7

- Start chute practice
- Attend team meeting
- Get some sleep





Grand Challenge Event

Saturday, October 8

- 4:30AM Route CDs distributed
- 6:15AM Opening Ceremony
- 6:30AM First vehicle underway (subsequent vehicles at fixed intervals)





Organization

- Control vehicles
 - Each entrant followed by a DARPA control vehicle
 - Safety crew
 - No team members
- Command Operations Center
 - Event control
 - Authorizes vehicle start, tracks vehicles, organizes recovery procedures
- Recovery operations
 - Tow vehicles strategically positioned along the route
 - Remove disabled vehicles from the route
 - Ten ton limit



Control Vehicle Operations

- Vehicle control
 - E-stop: RUN / PAUSE / DISABLE
 - E-stop PAUSE time does not count towards 10 hours
- Safety observers
 - Vehicle passing operations
 - Dangerous situations





Key Challenges

- Stay on the route
 - Shortcuts will not get you there faster
 - Use your sensors
- Avoid obstacles
 - Incidental impacts with obstacles
 - Frequent impacts with obstacles
 - Most dangerous: DARPA inserted obstacles
 - Passing
- Manage speed
 - Route must be completed at or less than 10 hours
 - Vehicle timers
 - Delays
 - Obey the speed limits



Route

in association with:





Well-Maintained Roads





Dirt and Gravel Tracks





Dashboard and Washouts



Utility Towers



Rutted Tracks



Poorly Defined Berms





Open Areas



Choke Points



Obstacles





Winding Mountain Roads



Steep Drop-offs





Contingencies

Event delay

- If not possible to finish within daylight hours, the event will continue the next day
- October 9 to 15

Two-day event

- If unexpected delay prevents vehicles from finishing the event within daylight hours, Chief Judge will direct overnight procedures
 - Vehicles stopped in place
 - Chase crews stay with vehicles
 - Event continues in the morning
 - Chase crews start vehicles or team members brought to start vehicles



Collecting the Prize

- Shortest time less than 10 hours
- Vehicle inspection at the finish
- Team leader specifies the dispensation of the prize

DARPA		US Treasury	1001
3701 N. Fairfax Dr.		Washington, DC	
Arlington VA 22203		DATE October 8, 2005	AMOUNT
PAY	TWO MILLION and xx/100 Dollars	\$ 2,000,000.00	
TO THE ORDER OF	The Winner	Dr. Anthony Tether	
		AUTHORIZED SIGNATURE	
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